UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
MASKULINSKI, MICHAEL C

ART UNIT	PAPER NUMBER
2113	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 April 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-10</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3 and 5-9</u> is/are rejected.

7)☒ Claim(s) <u>4 and 10</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>14 April 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>4/14/05</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

Non-Final Office Action

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-3 and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by

Shah et al., U.S. Patent 6,148,437.

Referring to claim 1:

a.   In column 2, lines 55-57, Shah et al. disclose that the present invention is

a jump-evaluating trace designator that includes an original instruction processor

(A method for transmitting digital messages through output terminals of a

monitoring circuit integrated to a microprocessor on execution of an instruction

sequence by the microprocessor, each digital message being representative of

characteristic data stored by the monitoring circuit on detection of a specific

event from among several specific events in the execution of the instruction

sequence, one of said data corresponding to an identifier of said specific event).

b.   In column 6, lines 62-65, Shah et al, disclose that the backpatch manager

examines a trace after it has been translated to determine if any other previously

translated trace has a jump instruction that jumps to the newly translated trace

(comparing the characteristic stored data of the last two detected specific events

corresponding to a same identifier).

c.   In column 4, line 67 continued in column 5, lines 1-3, Shah et al. disclose

that the start-end designator designates a jump instruction to be the end of the

trace if the number of times that control has passed through it reaches a

predetermined end-trace threshold (if the compared data are identical,

incrementing a repetition counter associated with said specific event).

d.   In column 12, lines 43-48, Shah et al. disclose that if there is no match

between the unique identifier of the current original instruction and any entry in a

column, driver in a known manner creates a new original instruction record by

creating a new row of entries in instruction data structure (and if the compared

data are different, transmitting a digital message representative of the data

characteristic of the last detected specific event and, further, if the content of the

repetition counter associated with said specific event is different from zero,

transmitting a digital message indicating a repetition of the specific event).

Referring to claim 2, in column 4, line 67 continued in column 5, lines 1-3, Shah

et al. disclose that the start-end designator designates a jump instruction to be the end

of the trace if the number of times that control has passed through it reaches a

predetermined end-trace threshold (the digital message indicating a repetition of the

specific event comprises the content of the repetition counter associated with said

specific event).

Referring to claim 3, in column 5, lines 49-51, Shah et al. discloses that if such a

counter reaches the end-trace threshold for the associated type of jump instruction, the

trace is ended (comprising resetting the repetition counter associated with said specific

event after transmission of a digital message indicating a repetition of the specific

event).

Referring to claim 5, in column 2, lines 55-57,Shah et al. disclose a. jump-

evaluating trace (the specific event is a jump in the instruction sequence executed by

the microprocessor).

Referring to claim 6, in column 19, lines 11-16, Shah et al. disclose that the start-

trace manager records the starting original instruction address of the trace that has

been started (in which the characteristic stored data comprise data representative of the

address of the destination instruction of the last detected jump).

Referring to claim 7, in column 2, lines 55-57,Shah et al. disclose a jump-

evaluating trace. A jump instruction is inherently a read or write operation in a computer

system.

Referring to claim 8, in column 5, lines 49-51, Shah et al. discloses that if such a

counter reaches the end-trace threshold for the associated type of jump instruction, the

trace is ended (transmitting a digital message indicating a repetition of the specific event

if the content of the repetition counter associated with said specific event is greater than

a determined threshold; and setting the repetition counter associated with said specific

event to zero).

Referring to claim 9:

a.   In column 2, lines 55-57, Shah et al. disclose that the present invention is

a jump-evaluating trace designator that includes an original instruction processor

(A device for transmitting digital messages between a monitoring circuit (--l-g)

integrated to with a microprocessor (-1-:2--) and an analysis tool (--2-4-), on

execution of an instruction sequence by the microprocessor, comprising: a--

means for detecting a specific event from among several specific events in the

execution of the instruction sequence; a-means for storing data characteristic of

the detected specific event, one of said characteristic data corresponding to an

identifier of the specific event; and a--means for transmitting a digital message

representative of the memorized stored characteristic data).

b.   In column 6, lines 62-65, Shah et al, disclose that the backpatch manager

examines a trace after it has been translated to determine if any other previously

translated trace has a jump instruction that jumps to the newly translated trace

(means for comparing characteristic data of the last two detected specific events

corresponding to a same identifier).

c.   In column 4, line 67 continued in column 5, lines 1-3, Shah et al. disclose

that the start-end designator designates a jump instruction to be the end of the

trace if the number of times that control has passed through it reaches a

predetermined end-trace threshold (means for incrementing a repetition counter

associated with said specific event when the comparison means provides a

signal indicating that the compared data are identical).

d.   In column 12, lines 43-48, Shah et al. disclose that if there is no match

between the unique identifier of the current original instruction and any entry in a

column, driver in a known manner creates a new original instruction record by

creating a new row of entries in instruction data structure (and in that the

transmission means is capable of transmitting a message representative of the

data characteristic of the last detected specific event when the comparison

means provides a signal indicating that the compared data are different and,

further, of transmitting a digital message indicating a repetition of the specific

event when the incrementation means provides a signal indicating that the

content of the repetition counter associated with said specific event is different

from zero).

Allowable Subject Matter

3.   Claims 4 and 10 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. The cited prior art is related to tracing of programs.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael C. Maskulinski whose telephone number is 571-

272-3649. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert Beausoliel can be reached on 571-272-3645. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C Maskulinski
Primary Examiner
Art Unit 2113